















(c)

i.  $V = 20$  litre

$$P = 29 \text{ atm}$$

$$P_1 = 1.25 \text{ atm}$$

$$V_1 = ?$$

$$T = T_1$$

Using gas equation,

$$\frac{PV}{T} = \frac{P_1 V_1}{T_1}$$

$$\frac{29 \times 20}{T} = \frac{1.25 \times V_1}{T}$$

$$V_1 = 464 \text{ litres}$$

ii.

$$P = 100 \text{ atm}$$

$$V = 20 \text{ litres}$$

$$P_1 = 1 \text{ atm}$$

$$V_1 = ?$$

$$T = T_1$$

Using equation,

$$\frac{PV}{T} = \frac{P_1 V_1}{T_1}$$

$$\frac{100 \times 20}{T} = \frac{1 \times V_1}{T}$$

$$V_1 = 2000 \text{ litres} = 2 \text{ m}^3 \text{ (1000 lit.} = 1 \text{ m}^3)$$

$$\text{Volume of one flask} = \frac{200}{100 \times 100 \times 100} \text{ m}^3$$

$$\text{Number of flasks} = \frac{2 \times 1000000}{200} = 10000$$

$$\text{Number of flasks} = 10000$$